

The effectiveness of art therapy with sand play method on behavioral disorders, emotional problems, and communication skills of children



Parisa Yaghoobian,¹ Seyedeh Olia Emadian^{2*}

ABSTRACT

The main purpose of this research was studying the effectiveness of art therapy with sand play method on behavioral disorders, emotional problems, and communication skills of children. This research was done with a semi-experimental method, using a pretest and post-test with a control group. The sample of this study was all elementary school boys in the first urban area of Tehran city, which comprised of 12500 students. A multi-stage random cluster sampling method was used in 24 areas of Tehran. The information gathering tools were Rutter Questionnaire (Teacher Form) for measuring behavioral disorders, Ashbanah Questionnaire (teacher form) for measuring emotional problems, and SDQ (Teacher Form) for measuring children's communication skills. These questionnaires were given to teachers for data collection. Thirty

students were randomly divided into experimental and control groups (15 students for the experimental group and 15 for the control group). The presence of symptoms of behavioral disorder, emotional problems, communication skills, and aged 6-12 years were requirements to enter the experimental group. The experimental group were subjected to sand play therapy in 10 sessions of 30 minutes. No intervention was provided for the control group. The findings were analyzed using covariance analysis. The results showed that the mean score of behavioral disorder and emotional problems in the experimental group was lower than the control group after the sand play therapy. The mean score of communication skills in the experimental group was higher than the control group after the art therapy with sand play method.

Keywords: Art therapy, Sand play therapy, Behavioral disorders, Emotional problems, Communication skills

Cite this Article: Yaghoobian, P., Emadian, S.O. 2019. The effectiveness of art therapy with sand play method on behavioral disorders, emotional problems, and communication skills of children. *Bali Medical Journal* 8(1): 153-159. DOI:10.15562/bmj.v8i1.1010

¹Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran.

²Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran

INTRODUCTION

Art refers to any activity that is both self-evoked and intrusive in the general and abstract sense. Therefore, art is different from the processes of nature (Pakbaz, 2008). According to the definition of the American Art Therapy Association, art therapy is treating and healing psychological disorders through the artistic intermediaries, which the person can reveal his internal experience and help the therapist analyze what he has presented (Koshkonesh, 2006). Each artistic variable that can relate the internal and external experiences of a person can be the basis of healing (Abuhmaza, 2007). Art therapy was also used to treat behavioral problems and acted as a sub-therapy in psychotherapy (Sheikh Tadi & Bahari, 2013).

Playing is like love, everyone knows what it is, but no one can describe it (Chance, 1971). Playing for children is like words for adults (Landreth, 1991), which is a natural, enjoyable, amazing, mysterious activity, and is a tool for expressing feelings, establishing relationships, describing experiences, revealing aspirations and self-blessings. For a child, playing activities are natural and objective means of communication with the world since they often have less verbal and cognitive abilities to express

their feelings. Therefore, play therapy is a good way to facilitate the child's communication, as well as cause assessing, compensating, and correcting their defects and disabilities (Mohammad Ismaeel, 2003).

Sand play therapy adds that natural and intrinsic materials, and are self-metaphors to improve the growth and deep layers of instinct (Malchyvda, 2003). The sandy intervention method had attracted the attention of many therapists, counselors, and researchers (Levon Feld, Leung Stone, 2002). Many techniques which used sandy area had been inspired by Levon's work (Dreuset al., 2001).

Problems showed by some children can be the result of their efforts to adapt to abnormal situations. Therefore, the first purpose of using terms such as "disorder" or "abnormal behavior" to describe the psychological state of children and adolescents was to help clinicians and researchers to describe the organization and expression of complex features that are often associated with a variety of behaviors (Emotional and behavioral disorders of childhood, Moradi & Rezaee Jamaloe, 2013). Researchers stated different reasons for behavioral problems, in which the most important of these are as follow:

*Corresponding to:
Seyedeh Olia Emadian, Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran
emadian2012@yahoo.com

Biological disorders (genetic, neurological and biochemical problems), Family negative atmosphere (Behavioral Theory of Learning and Psychoanalytic Theory), Subcultural and social impacts (Sociology and Ecology Theory), Undesirable experiences and successive failures (Seifnaraghi & Naderi, 2001).

Emotional problems involve a high percentage of people in different societies. These problems include depression, anxiety, hostility, and interpersonal sensitivity. Depression has many clinical symptoms, such as depressed mood, unconsciousness about the pleasures of life, lack of motivation and loss of vital energy, feelings of helplessness, and suicidal thoughts. Anxiety includes symptoms and signs such as nervousness, feeling of pressure, throbbing of the body, sudden fear, feeling of panic, fear, and anxiety about the future and other physical aspects. Hostility includes thoughts, feelings, or acts that reflect the negative mood of anger. Interpersonal sensitivity means the feeling of inadequacy and humiliation of a person, especially in comparison with others, underestimating self, and feeling reluctant and uncomfortable in communicating with others (Fathi Ashtiani, 2009). Acquiring social skills has been the basis of human socialization in all cultures since two or three recent centuries because human beings are social and dynamic entities that always interact with allies to meet the physical and emotional needs. Humans cannot develop their abilities to carry out individual tasks without communication with others (Nasaji Zavare, 2009). Social skills are a complex set of skills that are critical to adapting and coping with stressful situations, infect relationships, and affect the overall performance of humans. In other words, social skills are behaviors that help people to interact with others. Family and school are considered as the first social environments of the individual. In school, teenage interactions may be with classmates, teachers, and other school staff. In the later stages of life, this interaction is with colleagues, friends, and others (Randy and Michael, 2008). The main purpose of the present research is studying the effectiveness of art therapy with sand play method on behavioral disorders, emotional problems, and communication skills of children.

THEORETICAL BASIS

Art Therapy

Art therapy is the result of the interaction of art and the art of the therapist. Art is inherently therapeutic, and this is due to innate features that are in its structure. Art penetrates through the ambiguity of the inner being and the hidden angles of the inner and subconscious. Art also creates an

opportunity to express imagination, thus everyone can see it from their own perspective, sees within it, finding an opportunity for himself, and finding a way to appear. Art is a curative therapy because it stimulates the feeling of aesthetics by unified and harmonious structure and creates a safe and secure environment where thoughts and feelings can easily be relaxed and streamlined in its regular structure (Alizadeh Mohammadi, 2010). Rubin (1987) pointed out that Sigmund Freud found out early in his psychoanalytic theory that patients used expressive methods and their most important connections were descriptions of visual images. Of course, Freud's interest in the dreams of his patients had been an attempt to interpret dreams and images in the form of vocabulary. He also elaborated that Freud actively requested images often by teaching his clients to focus on memories or by putting their hands on their foreheads to feel the external pressure. Later, Freud abandoned his passion for visual images for the process that was called "free association" (the process of speaking about free-thinking). His daughter, Anna Freud, who was a child psychoanalyst focused on art once again (as well as the play) because she found that her teenage patients did not have a good position to use the free association process (Ellen and Barry, 1987).

Play Therapy

Play therapy is an interactive interaction between a trained adult and a child, which looks for ways to reduce the emotional distress of the child through symbolic communication in the game. The child is expected to experience acceptance, emotional evacuation, mitigating effects, reorientation of impulses and corrected emotional during his or her interactions with the therapist (Mohammad Isma'il, 2003). Play therapy is an active approach that is applied individually or collectively in a way that allows children to reveal their vigilant and unconscious emotions through play. There are many different theories that explain the children's play (Piaget, 1962). The game represents the child's efforts to organize their experiences in their world. The child feels that he has control over the play, even if the situation in the real world is the opposite (Ferank, 1982).

O'Connor stated that the main goal of the psychotherapeutic play therapy is to develop or revise mental structures and functions to achieve optimal growth. This is done through interpretation and work by art or play that may extend the child's insights and behavioral changes. Nevertheless, psychoanalytic play therapy has serious limitations because it is currently recommended for children who have evolved characters and whose symptoms emerge from the anxiety caused by their internal

conflict. This type of treatment is considered as the most effective treatment because children can talk about their problems, gain insights and then apply behavioral changes.

Sand Play Therapy

The main technique behind the therapy in Yong's theory is that the psyche has a natural ability to heal itself. Calf believed that the aim of the sand plate was activating the healing energy of a deep stage of the psyche by using miniatures and trays of sand to reflect the inner world of the references. Obscure processes become visible in a three-dimensional form and become a dream experience through this activity, free experience, and creative play. Therefore, sand play creates a space for unconsciousness and cause recognition (Bahmanesh & Ranger, 2015). A group of children and adolescents always violates laws, norms, and putting their social life and others at risk. Some of anti-social behaviors are robbery, destruction, creating a fire, lying, school leaving, and escaping, which may occur throughout childhood and adolescence. Although these behaviors are diverse, they are indicative of a pathological category that shows specific syndrome in the classification of mental illnesses (Mohammadi, 2004). Most Jung-based fan supporters agree that the sand play involves an active or creative imaginative process, develops an evolutionary or healing process, acts as a stimulant for the evacuation of mental energy, and a process that can eliminate the gap between self-conscious and unconscious processes. In this way, the therapist is encouraged to talk less often throughout the sand play process and watch out for what he sees. As Weinrib (1983) pointed out, "The specific interpretation of a particular sign may be less important than the process itself and the relationship between the therapist and the patients." He also commented, "Sand play enters completely free element of the game, along with everything that is free and creative in the process of healing." Sand play is not a game with rules; it is free and encourages playfulness and joking. Its value is its empirical and non-intellectual specifications.

Behavioral Disorders

It is not easy to define and determine the disruptive functions because the behavioral patterns are unlimited and have different names such as behavioral disorder, behavioral misconduct, behavioral problems, psychological problems, abnormal behavior, maladaptive behaviors, disorders, deficits, and psychopathology. Inappropriate behaviors are often considered as "abnormal" behaviors and defined as something that divert from the standard level (Nelson and Izrael, 2008). They are disabling disorders that cause many problems for teachers,

family, the children themselves, and are associated with a high percentage of social problems. Various definitions of behavioral disorders were proposed that emphasize on particular aspect but all definitions are relative to the following:

- a) These behaviors are extreme. Behaviors that slightly differ from the norms are not considered as a disorder.
- b) Behavioral disorders are chronic and are not quickly resolved.
- c) These behaviors are not accepted by the community due to the inconsistency with socio-cultural expectations (Shokohi Yekta & Prand, 2009).

Emotional problems

Children's emotional problems are common and disabling problems that cause many problems for teachers, families and the child themselves. It also has a negative effect on the social, educational, and professional performance of children and adolescents and increases mental illness in adulthood (Shokohi Yekta & Prand, 2009).

Communication skills

Adaptation is balance and coordination between thoughts, deeds and emotions. Social compatibility is a complicated process, resulting from individual interaction with the environment because of behavior coordination with culture, rules, limits, standards, and social customs (Oleofintoye, 2008). Although it is agreed that emotional regulation involves internal processes that is done with excitement; in this definition, no attention is paid to the apparent or purposeful behavior because of the adjustment of excitement or its non-regulation. There is no agreement on whether this concept involves regulations of parents, teachers, or it involves both optional and non-optional regulation. There is no general agreement on the predictability of tuning the excitement as an important component of excitement (Cole, Denise, and Martin, 2012).

History of Research

Humir (2016) concluded in his research entitled "the efficacy of sand play therapy in children with anxiety and depression" that sand play therapy reduced anxiety and depression, and also helped to improve the child's internalization problems.

Swan & Carry (2013) in their research entitled "Dreams of the children through sand play therapy" concluded that children achieved their past and present dreams through sand play therapy. This treatment was effective for the child's growth needs. It also helped children to see their dreams potentially. Van, Dekovic, Prinzie, Stams & Asscher.

(2012) in their research focused on the effect of social skills training programs for children aged 7 to 13 with behavioral problems. The results showed that social skills training led to positive changes in children's behavioral problems.

Nadi, Banijamali, Khosravi, and Dehsiri in their research entitled "The effectiveness of sand play therapy on reducing depression symptoms in a low socioeconomic class" found that sand play was effective in reducing the symptoms of depression in low-income children with low socioeconomic status.

Robanzadeh (2015) in his research entitled "Providing a dynamic mental flow protocol for a short-term group who faced tragical events," concluded that miniatures reflected their emotions and empathy. It also traced self-healing before and after the event. It created a safe place for patients, there were actions to rebuild meaning, and so it could be a way to regain energy from the deceased.

Research Method

The method of this study was semi-experimental, using a pre-test and post-test, with a control group to measure the intervention's effectiveness. In this method, 30 students were selected randomly, divided into two experimental groups (RE) and control group (RC). First, each group had a joint

pre-test. Then, training was performed for the experimental group. The experimental and control groups were subjected to the post-test. The statistical sample of this study was all elementary school boys studying in the first urban area of Tehran, as many as 12,500 students. The urban areas were selected randomly using random multi-stage cluster sampling. Then, a primary school was selected randomly. Six primary class were randomly selected and research questionnaires were given to their teachers. The sample size, calculated according to Krejcie and Morgan's table, was 375 students. Thirty students were selected as the sample. Students were randomly assigned into experimental (15 students) and control (15 students) groups. Data collection in this research was done in two ways, field method and using questionnaires. Inferential statistical methods, which were single-variable covariance analysis (ANOVA) and multivariate covariance analysis (MANCOVA), were used to analyze data using Win18 SPSS. The significance level in this research was $\alpha = 5\%$.

RESULTS

First hypothesis: Art therapy using sand play method has a significant effect on children's behavioral disorders.

Table 1 Levin test results to examine the equations of equality of variances

Statistical variable	F	First degree of freedom	Second degree of freedom	Significance level
Behavioral Disorder	2.368	1	28	0.135

Table 2 Results of normality test

Statistical variable	Group	Kolmogorov-Smirnov		Shapiro-Wilk	
		Degree of freedom	Significance level	Degree of freedom	Significance level
Behavioral Disorder	Test	15	0.023	15	0.134
	Control	15	0.144	15	0.250

Table 3 The results of covariance analysis on the effect of art therapy with sand play method on reducing behavioral disorders

Source of influence	Sum of squares	Degree of freedom	Average of squares	F	Significance level	ETA Coefficient
Corrected pattern	87.596	2	43.798	17.944	0.000	0.571
Fixed value	32.748	1	32.748	13.416	0.001	0.332
Pre- Test	0.896	1	0.896	0.367	0.550	0.013
Group	13.723	1	13.723	5.622	0.025	0.172
Error	65.904	27	2.441			
Sum	1061	30				
Corrected Sum	153.500	29				

Table 4 Levin test results to examine the equations of equality of variances

Statistical variable	F	First degree of freedom	Second degree of freedom	Significance level
Emotional Problem	0.068	1	28	0.796

Table 5 Results of normal data test

Statistical variable	Group	Kolmogorov-Smirnov		Shapiro-Wilk	
		Degree of freedom	Significance level	Degree of freedom	Significance level
Emotional Problem	Test	15	0.073	15	0.445
	Control	15	0.200	15	0.304

Table 6 The results of covariance analysis on the effect of art therapy with sand play method on reducing emotional problems

Source of influence	Sum of squares	Degree of freedom	Average of squares	F	Significance level	ETA Coefficient
Corrected pattern	131.941	2	65.970	21.023	0.000	0.609
Fixed value	34.861	1	34.861	11.109	0.003	0.292
Pre- Test	3.808	1	3.808	1.213	0.280	0.043
Group	12.617	1	12.617	4.021	0.055	0.130
Error	84.726	27	3.138			
Sum	1420	30				
Corrected Sum	216.667	29				

Table 7 Kolmogorov-Smirnov test and Shapiro-Wilk test to examine the normal distribution of communication skills

Statistical variable	Degree of freedom	Significance level Kolmogorov	Significance level Shapiro-Wilk	Error Level	Confirmation of hypothesis	Conclusion
Communication with the same age	15	0.2	0.347	0.05	H ₀	Normal
Desirable social behavior	15	0.132	0.379	0.05	H ₀	Normal

Table 8 Box test results in homogeneity analysis of variance-covariance matrices

Test Box Value	F	First degree of freedom	Second degree of freedom	Significance level
0.719	0.221	3	141120	0.882

Table 9 Multivariate Covariance Analysis (MANCOVA) of the mean score of communication skills before and after training

Name of Test	Value	F	df(hypothesis)	df(error)	Sig
Pilae effect test	0.277	4.791	2	25	0.017
Wilkes Lambda Test	0.723	4.791	2	25	0.017
Hetling effect test	0.383	4.791	2	25	0.017
Test the biggest root of zinc	0.383	4.791	2	25	0.017

Table 10 Loon's test in the assumption of equalization of variances

Post test	F	First degree of freedom	Second degree of freedom	Significance level
Communication with the same age	0.04	1	28	0.842
Desirable social behavior	0.964	1	28	0.334

Table 11 Results of inter-group effects on the mean scores of pre-test and post-test of the two groups in terms of communication skills

Post test	Sum of Squares	Degree of freedom	Average of squares	F	Significance level
Communication with the same age	5.749	1	5.749	5.308	0.029
Desirable social behavior	26.803	1	26.803	5.672	0.025

The F value for children was 5.622. Therefore, the effect of art therapy with sand play method in reducing the number of behavioral disorders of children aged 6 to 12 years old in first urban area of Tehran was statistically significant ($p < 0.025$). According to the Eta-square coefficient (0.172), it can be concluded that art therapy with sand play method showed 17% of the variance in reducing the number of behavioral disorders.

Second hypothesis: Art therapy using sand play method has a significant effect on children's emotional problems.

The F value for children in this study was 4.021. Therefore, the effect of art therapy with sand play method in reducing the number of emotional problem of children aged 6 to 12 years old in first urban area of Tehran was statistically significant ($p < 0.05$). In addition, according to the Eta-square coefficient (0.130), art therapy with sand play method showed 13 percent of the variance in reducing the number of emotional problem.

Third hypothesis: Art therapy using sand play method has a significant effect on children's communication skills.

We used multivariate covariance analysis (MANCOVA) to answer the above hypothesis.

According to table (7), the significance level of the distribution of communication skills was greater than the 5% error rate, therefore, the variables were normally distributed.

According to table (11), there was a significant difference between the pre-test and post-test scores in the two groups in terms of communication skills. In other words, the multivariate analysis of

covariance (MANCOVA) showed that the effect of the independent variable (group) was significant. According to the score average, we concluded that art therapy with sand play method affected children's communication skills.

CONCLUSION

Touching and moving the sand is an experience that moves the focus from the outside world (conscious mind) to the body, and becomes internal intrinsic. In addition, by reviewing previous experiences, a child adapts them to the new image and patterns of life, reconsiders, and acquires awareness of the issues, beliefs, interests, needs and outcomes of self-awareness and moves in the direction of change. The results of this study showed that art therapy with sand play method significantly affected behavioral disorder, emotional problems, and communication skills.

PRACTICAL RECOMMENDATIONS

1. Since art therapy with sand play method affected behavioral disorder, emotional problems, and communication skills, it is advisable for child psychiatric therapists to apply this method in practice.
2. It is suggested to the welfare organization, clinic, and specialized childcare centers to examine and run this method to reduce aggression, emotional problems, as well as children's communication skills.
3. Comprehensive and curated programs using sand play method to be developed by the education authorities.

CONFLICT OF INTEREST

Author declares there is no conflict of interest regarding all aspect of the study.

REFERENCES

1. Abohamze, E., Hashemian, K. (2007). *Clinical Art Therapy*. Tehran: Danje Press.
2. Alizade Mohamadi. (2010). *Art Therapy: An Introduction of Art Therapy for Groups*. Tehran: Gatre Press.
3. Behmanesh, B., Ranjigar, P. (2015). *Sand play: Theory and practice*.Tehran: Danesh Arzin Jahan press.
4. Cole. P.M., Dennis, T. A., & Martin, S. A. (2012). *Emotion regulation: A scientific conundrum, Poster session presented at the annual meeting of the International Society for the Study of Behavioral Development*. Ghent, Belgium. Retrieved January 21. 2007.
5. Dreus, A., Carey,l., & Schaefer, c.(2001). *School-based Play Therapy*. New York.
6. Fathi Ashtiani, A. (2009). *Psychological tests: Personality, mental, and health assessment*.Tehran: Besat Press.
7. Johan Wiley & Sonshomeyer, L. E. (2016). *Sand tray/sand play Therapy*. In k. J. O'Connor and C. E. Schafer (Eds). L. D. Braver man, PhD. *Handbook of play therapy*, Edition, 2. Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
8. Khoshkonesh, A. (2006). Art Therapy: Definition, History, Methodology and Comparison. *Researches of the First Congress of Art Therapy in Iran*.
9. Lantz,J.& Raiz, J. (2003). *Play and art in existential trauma therapy whit children and their parents*. Contemporary family therapy, 25(2), 165-177.
10. Mohamadi, N. (2004). *Diagnosis and treatment of normative behavior disorder*.Shiraz: Navid Shiraz Press.
11. Mohamad Ismaeel, E. (2003). *Play Therapy: Theories, methods and clinical applications*. Tehran: Danje Press.
12. Naderi, F., Ansari, Z. (2011). The Effect of Art Therapy on the Authentication and Happiness of Children to Ahvaz counseling and treatment centers who came to the counseling and treatment centers. *Journal of New Findings in Psychology, No. 18, pp. 17-33*.
13. Nasaji Zavare, I. (2009). The growth of children with social skills. *Journal of Peyvand, No. 23, pp. 20-356*.
14. Pakbaz, R. (2003). *Encyclopedia of Art(1st Ed.)*. Farhang Moaser press.
15. Robanzade, Sh., Abedin, A. (2015). *Quarterly Journal of Clinical Psychology, No. 20*.
16. Seifnaraghi, M., Naderi, E. (2000). *Child behavioral disorders and its i* Sheikhtadi, F., Bahari, E. (2013). *Study of art therapy, Remedies, and therapist art*.Shahr-e-Ray: University of Payam Noor.
17. *mprovement methods*.Tehran: Badr Press.
18. Van Vugt, E.S., Deković, M., Prinzie, P. Stams, G.J.J.M Asscher, J.J. (2012). *Evaluation of a group-based social skills training for children with problem behavior, Children and youth Services Review, In Press corrected Proof*.



This work is licensed under a Creative Commons Attribution